

Notice of Allowability

Application No.

09/098,190

Examiner

Jeff Piziali

Applicant(s)

SHEATS ET AL.

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to BPAI Decision mailed 28 April 2004.
2. ☒ The allowed claim(s) is/are 4-7 and 9-12 (renumbered as claims 1-8).
3. ☒ The drawings filed on 06 June 1998 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



6 June 2005

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Calvin B. Ward (Registration No. 30,896) on 6 June 2005.

The application has been amended as follows: **Cancel claims 3 and 8.**

Allowable Subject Matter

2. Claims 4-7 and 9-12 (renumbered as claims 1-8) are allowed.
3. The following is an examiner's statement of reasons for allowance: The present invention comprises a display having a plurality of light emitting pixels. The closest prior art, Jones (US 5,920,080), discloses a display comprising a plurality of light emitting pixels [Fig. 8, 10], each pixel comprising an isolation transistor [Fig. 1, 100] (Column 7, Lines 21-27), a driving circuit (Column 7, Lines 41-42), and an organic light emitting diode [Fig. 1, 300], the driving circuit storing a value that determines the magnitude of the light emitted by that pixel (Column 7, Lines 45-48), the driving circuit placing the OLED in a conducting path between first [Fig. 8, 801] and second [Fig. 8, 802] power terminals, the isolation transistor connecting

the driving circuit to a bit line when the isolation transistor is placed in a conducting state by the application of a logic signal to a word line (Column 7, Lines 39-41), wherein the OLEDs are part of an array of OLEDs, the array comprising: a sheet [Fig. 1, 500] having first and second surfaces, the first and second surfaces being parallel to one another, the sheet being transparent to light of a first wavelength; a first electrode [Fig. 1, 250] comprising a first electrode layer in contact with the first surface, the first electrode layer being transparent to light of the first wavelength; a light emitting layer [Fig. 1, 300] comprising an organic polymer in electrical contact with the first electrode layer; and a plurality of second electrodes [Fig. 1, 200], one such second electrode corresponding to each OLED, each of the second electrodes comprising an isolated conducting area in contact with the light emitting layer, the light emitting layer generating light of the first wavelength in a region adjacent to the second electrode when a potential difference is applied across the first and second electrodes, and wherein the isolation transistors are part of an array of transistors on a substrate that is separate from the array of OLEDs (Column 5, Line 65 - Column 6, Line 37).

Moreover, analogous art Gu et al. (US 5,844,363) discloses flexible OLEDs (Column 1, Line 32 - Column 2, Line 15); and Haskal et al. (US 5,952,778) discloses a flexible sheet [Fig. 1, 8] comprising a material impermeable to water and oxygen (Column 3, Lines 19-22).

However, the prior art does not expressly disclose a bonding layer comprising an anisotropic conductive adhesive located between the transistor array and the array of OLEDs, the bonding layer being in contact with a plurality of connection points and electrically connecting each of the second electrodes to a connection point corresponding to the second electrode without electrically connecting any one of the second electrodes to a connection point that does

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not correspond to the second electrode. Both independent claims 4 and 9 recite such explicit bonding layer structure, and have subsequently been rendered allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J.P.

6 June 2005



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